

REMARKS/ARGUMENTS

Claims 1-26 are pending in the present application and stand rejected.

Claims 1-4 are rejected under 35 USC §103 as being unpatentable over United States Patent Application Publication US 2003/0229637 to Baxter et al. (hereinafter "Baxter") in view of United States Patent Application Publication US 2002/0174306 to Gajjar et al. (hereinafter "Gajjar").

Claims 5-26 are rejected under 35 USC §103 as being unpatentable over Baxter in view of Gajjar and further in view of United States Patent Application Publication US 2002/0163910 to Wisner et al. (hereinafter "Wisner").

Claims 1, 5-9, 11-13, and 18 are amended. Claims 4, 13 and 16-17 are canceled without prejudice or disclaimer. No new matter has been added.

Applicants respectfully submit that a prima facie case of obviousness has not been established as to the claims previously presented for examination. As discussed below, the requirements of MPEP §2143 are not satisfied by the collection of cited references.

Nonetheless, in the interest of moving forward with prosecution of this application, Applicants have amended the claims to improve clarity without introducing new matter. For example, claim 1 is amended to recite parts of claim 6 and claim 4. Also, claim 12 now includes elements from claim 13. Claim 18 has been returned to substantially the original claim language. It is respectfully submitted that the scope of the invention has not changed and that therefore the claim amendments do not necessitate a new search.

I. The Office Action Does Not Establish a Prima Facie Case of Obviousness

As set forth in MPEP §2142, the Examiner bears the initial burden of establishing a prima facie case of obviousness. To establish a prima facie case of obviousness, three basic criteria must be met. First, the cited references must teach or suggest each and every claim limitation. MPEP 2143.03. Next, the references must provide a motivation to make the proposed combination either explicitly or implicitly. MPEP 2143.01. Finally, there must be a reasonable expectation of success in modifying or combining the references. MPEP 2143.02.

Applicants submit that the Office Action does not meet these requirements and that therefore a prima facie case of obviousness under MPEP 2143 has not been established.

A. Claim 1

As presented for examination, claim 1 recites a method for distributing data among a plurality of data storage systems. The method includes "producing profile information for a first data object that is stored in a first data storage system...communicating said profile information to at least one second data storage system; and selectively copying said first data object to said second data storage system based on said selection criteria and on said profile information." Taken alone or in combination, the cited references do not teach or suggest at least these claim elements.

1. The cited references do not disclose producing profile information for data objects stored in a data storage system.

In the Office Action, it is acknowledged that Baxter does not disclose "producing profile information for a first data object that is stored in a first data storage system" as claimed. See, Office Action at p. 3. However, the Office Action indicates that this limitation can be found in Gajjar at ¶6, lines 1-5. Applicants respectfully submit that this is an incorrect reading of the reference.

Gajjar discusses allocating storage capacity to host computers based upon the needs of software applications. See, Gajjar at ¶29. For example, Gajjar discusses that storage provisioning policies can be created to satisfy a particular application's quality of storage service (QoS) requirements. See, Gajjar at ¶20. Gajjar mentions that these storage provisioning policies may be contained in "storage profiles" that are used to allocate storage to different types of software such as databases and streaming applications. See, Gajjar at ¶33.

Gajjar does not disclose profiling stored data objects. In fact, profiling stored data objects is activity that is outside the scope of the reference. Gajjar does not teach or suggest producing content-based profile information associated with stored data objects, but rather teaches "storage profiles" that express storage provisioning policies. Accordingly, neither Baxter nor Gajjar discloses "producing profile information for a first data object that is stored in a first

data storage system, said profile information comprising content-based information associated with said first data object" as claimed. Moreover, although not made part of the claim rejection, Applicants note that the Wisner reference also fails to teach or suggest this limitation.

2. Baxter and Gajjar do not disclose communicating profile information to a second data storage system or selectively copying files using content-based profile information.

The Office Action states that these limitations are disclosed by both Baxter and Gajjar. Baxter allegedly discloses communicating profile information at ¶7, lines 1-15 and Gajjar allegedly discloses profile information at ¶8, lines 1-15. See, Office Action at p.3. The Office Action also states that Baxter discloses selectively copying files based upon profile information in the same passage. Id.

As previously discussed, Gajjar does not teach or suggest profiling data objects that are stored in a data storage system. It follows that Gajjar also fails to disclose communicating profile information to a second data storage system. Applicants note that Gajjar does not disclose copying files from one data storage system to another, much less selectively copying files between systems based upon content-specific profile information. Baxter does not cure these deficiencies.

Baxter discusses a system for safeguarding files. A computer user saves files to a designated location on a client network. Thereafter, at regular intervals, a software agent from a service provider scans the designated location and copies the files to the service provider's computer system. See, Baxter at Fig. 1.

Baxter does not teach or suggest that the client computer produces profile information and communicates it to the service provider. Moreover, Baxter fails to disclose that the client computer selectively copies files to the service provider computer based upon the profile information.

Accordingly, Baxter and Gajjar fail to disclose "communicating said profile information to at least one second data storage system" and "selectively copying said first data object to said second data storage system based on said selection criteria and on said profile information" as claimed.

3. There is no motivation to combine Baxter and Gajjar to produce the claimed invention.

As provided in MPEP 2143.02, obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so. (citing *In re Kahn*, 441 F.3d 977, 986, 78 USPQ2d 1329, 1335 (Fed. Cir. 2006)). This requirement ensures that improper hindsight analysis is not used when claims are examined.

Neither Baxter nor Gajjar discloses communicating content-based profile information between computer systems or selectively copying files based upon such profile information. Baxter is directed to an automated scanning process and does not disclose communication between the service provider and client computer. Gajjar does not contemplate profiling stored data objects and, moreover, doesn't even mention copying files between computer systems. Accordingly, the necessary motivation to combine cannot be found either explicitly or implicitly in either of these references.

4. There is no reasonable expectation of success that Baxter and Gajjar can be combined to produce the claimed invention

Applicants respectfully submit that Baxter and Gajjar cannot be meaningfully combined and that, in any event, there is no reasonable expectation of successfully producing the claimed invention through such a combination. As previously discussed, Gajjar is concerned with establishing storage provisioning policies to meet quality of service requirements for software applications. Baxter, on the other hand, discusses software for copying files placed in a pre-designated location. Neither reference discloses using content-based profile information to selectively copy stored data objects between systems. Accordingly, there is no reasonable expectation that such features would result from a combination of these references.

Based upon the foregoing, Applicants respectfully assert that the Office Action does not establish a prima facie case of obviousness and that the rejection of claim 1 under 35 U.S.C. §103 is therefore improper.

B. Claims 2-4

As presented for examination, claims 2-4 depend from claim 1 and are therefore allowable over the cited references for at least the reason that they depend from an allowable base claim. MPEP 2143.03 clearly states that, if an independent claim is nonobvious under 35 U.S.C. 103, then any claim depending therefrom is also nonobvious. (citing *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988)). Accordingly, claims 2-4 are also believed to be allowable over the combination of Baxter and Gajjar as previously discussed.

C. Claim 5

Claim 5 is rejected over Baxter in view of Gajjar and further in view of Wisner. As described above, neither Baxter nor Gajjar discloses producing profile information comprising content-based information associated with a stored data object (i.e., profile information of the data objects themselves). Additionally, for reasons previously given, Baxter and Wisner also fail to disclose communicating such profile information to a second data storage system, and neither reference teaches or suggests selectively copying files to a second computer system based upon such profile information. Wisner does not cure these deficiencies.

1. Wisner discloses data mirroring, not selectively copying data objects based upon content-specific profile information

Wisner discusses a system for accessing resources using a switch fabric. According to Wisner, a first data storage unit contains active resources and a second data storage unit contains standby resources. See, Wisner at Fig. 1. Wisner mentions that the first storage unit may use various techniques to ensure that the second storage unit contains a mirror copy of its own data. See, Wisner at ¶57. As part of this process, the first storage unit transfers data to the second storage unit and waits for the second storage unit to acknowledge that the data was received. Id.

Wisner does not disclose creating profile information for stored data objects and selectively copying the data objects to a second data storage system. In fact, Wisner's data mirroring is nearly the opposite of this approach. In other words, Wisner teaches copying all files to create a mirror image of the first data storage unit at the second data storage unit. There

is no teaching or suggestion that this is a selective process involving content-based profile information or that such profile information is communicated from the first storage unit to the second storage unit.

Accordingly, Wisner does not teach or suggest "producing profile information for a first data object that is stored in a first data storage system, said profile information comprising content-based information associated with said first data object; communicating said profile information to at least one second data storage system; selectively copying said first data object to said second data storage system based on said selection criteria and on said profile information" as claimed.

2. Wisner does not disclose receiving an interest metric from a second data storage system in connection with selectively copying files

Wisner does not disclose that a first data storage unit receives a selection indication or interest metric from a second data storage unit as part of a copying process. Instead, the passage cited in the Office Action simply indicates that Wisner's first storage unit waits for the second storage unit to acknowledge that it received the information. See, Office Action at p. 5 (citing Wisner at ¶57, lines 1-14). Wisner's acknowledgment is not a selection indication or an interest metric as claimed. In fact, there is no discussion in the reference of interest metrics or profile data.

Thus, Wisner does not teach or suggest "receiving at said first data storage system a selection indication from each of said second data storage systems, wherein said selection indication is an interest metric" as claim 5 recited when presented for examination.

D. Claims 5-26

Applicants note that each one of claims 5-26 as presented for examination contains limitations not found in the cited references as previously discussed. For example, as presented for examination, claim 18 recites limitations similar to those of claim 1 and is therefore patentable over the cited references for similar reasons.

In addition, claim 12 recites a data storage system with a data processing component configured to "produce profile information associated with a first data object that is

stored in said data storage component, said profile information comprising content-based information associated with content of said first data object." A data processing component with these features is not found in the cited references.

Moreover, independent claims 20 and 24 each recite a data system with a replicator component that is "operable to produce profile data for a data object that is to be replicated among one or more candidate target data centers, to communicate said profile data to at least one of said candidate target data centers, to receive a selection indication from each of said candidate target data centers, and to selectively communicate said data object to a candidate target data center based on its selection indication, said profile data representative of content of said data object." None of the cited references discloses a data system having a replicator component as claimed.

As previously indicated, if an independent claim is nonobvious under 35 U.S.C. 103, then any claims depending therefrom are also nonobvious. MPEP 2143.03. Accordingly, dependent claims 5-11, 14-15, 19, 21-23, and 25-26 are believed to be patentable because a prima facie case of obviousness was not established as to their respective base claims.

II. Claim Amendments Offered to Advance Prosecution, Despite the Office Action Having Failed to Make a Prima Facie Case of Obviousness

Applicants maintain that a prima facie case of obviousness has not been established and that, therefore, no claim amendments are required to distinguish over the cited references. However, in the interest of furthering prosecution of the instant application, certain claims are amended for clarity and to better define the claimed inventions. It is believed that the claim amendments do not change the scope of the invention and that no additional search is required. An overview of the amendments is provided below.

Claim 1 is amended to recite "receiving a selection indication from said second data storage system, wherein the selection indication is based upon selection criteria maintained at said second data storage system." This limitation is based upon claim 6 and claim 4 as previously presented for examination. Various dependent claims have been modified accordingly. Amended claim 1 clarifies that the method of distributing data comprises (1)

producing profile information associated with a stored data object, (2) communicating the profile information to a second data storage system, (3) receiving a selection indication from the second data storage system, and (4) selectively copying the stored data object based upon both the selection indication and the profile information. These limitations are not found in the cited references as discussed above.

Claim 12 is amended to incorporate limitations previously set forth in claim 13 and claim 13 is canceled. Accordingly, claim 12 now recites a data processing component configured to "produce profile information associated with a first data object that is stored in said data storage component, said profile information comprising content-based information associated with content of said first data object; communicate said profile information to a plurality of candidate data servers; receive a selection indication from each of said candidate data servers; and copy said first data object to one or more of said candidate data servers based on selection indications received from said candidate data servers." The cited references do not teach these features and limitations.

Claim 18 is returned to approximately the original claim language. It is believed that this amendment more clearly recites the claimed embodiment. Claims 9-11 are made dependent upon claim 18. Applicants note that, in addition to the features previously discussed, the cited references do not disclose a selection server system or "receiving a selection indication from said selection server system" as recited in claim 11. Additionally, the cited references do not disclose "receiving, at said first data storage system, said selection criteria from one or more data storage systems other than said first data storage system" as recited in claim 19.

Based upon the preceding discussion and claim amendments, Applicants respectfully request reconsideration and allowance of claims 1-26.

CONCLUSION

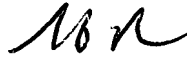
In view of the foregoing, Applicants believe all claims now pending in this Application are in condition for allowance. The issuance of a formal Notice of Allowance at an early date is respectfully requested.

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PATENT

If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 858-350-6100.

Respectfully submitted,



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